Drawing Amendments:

Please amend the drawings as indicated in the attached drawing sheets. The attached drawing sheets include a replacement sheet showing amended FIG. 2, and an annotated sheet of FIG. 2 showing changes made. No new matter has been added.

REMARKS

Claims 18-26 Are Not Indefinite

In the Office Action mailed November 2, 2006 (hereinafter, the "Office Action"), claims 18-26 are rejected under 35 U.S.C. §112 , second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. *Office Action*, p. 6. In particular, the Office Action states that claim 18 is directed to a dispatch control system, however, none of the limitations of the body of the claim functionally provide for controlling dispatching. *Id.* Claims 19-26, which depend from claim 18, are rejected as being indefinite for depending from an indefinite claim. *Office Action*, p. 7. Applicants respectfully traverse the rejections.

Claim 18 recites "a mobile technician interface" and a "frame order management system." The Specification discloses mobile technicians may be dispatched via a mobile technician interface. *Application*, p. 5, paragraph [1018]. Additionally, the Specification discloses that a frame order management system may be used to direct technicians to work on equipment such as central office equipment or regional office equipment. *Id.* Thus, both the mobile technician interface and the frame order management system functionally provide for controlling dispatching. Claim 18-26 are therefore definite and allowable.

Claims 38 and 39 Are Not Indefinite

The Office Action rejects claims 38 and 39 under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. *Office Action*, p. 7. Claim 39 is rejected as being dependent from indefinite independent claim 38. The Office Action states that in claim 38:

> [T]he limitations recite receiving frame order completion data, however, this completion data is not functionally connected to the service order completion data. Additionally the order status provided via a web interface is not functionally connected to the other two recitations of data exchange (i.e. service order

> completion data and frame order completion data). The claim is indefinite, because (1) it is not clear that the limitations provide for monitoring order status and (2) the elements cited do not provide the functionality necessary to provide for monitoring order status.

Office Action, p. 7

As amended, claim 38 recites receiving service order completion data, receiving frame order completion data, and providing an order status based on the service order completion data and the frame order completion data. The data exchange elements are thus interconnected, and the method provides the functionality necessary to provide for monitoring order status. Claims 38 and 39 are therefore definite and allowable.

Claims 1-12, 14, 16, 17 and 30-36 Are Allowable

The Office Action rejects claims 1-12, 14, 16, 17 and 30-36 under 35 U.S.C. § 103(a) over the Non-Patent Literature reference Weigel, Don; Cao, Buyang; "Applying GIS and OR Techniques to Solve Sears Technician-Dispatching and Home Deliver Problems", Jan/FEB 1999, *Interfaces,* 29, 1, ABI/INFORM Global, p. 112 ("Weigel"), in view of U.S. Patent No. 6,136,607 to Bogart, et al. ("Bogart"). *Office Action*, p. 8. Applicants respectfully traverse the rejection.

Claim 1 recites a service assignment module configured to assign a service request to a technician from a pool of available technicians based at least in part on a historical technician performance statistic and a current location of the technician. Neither Weigel nor Bogart disclose or suggest this feature of claim 1.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Second, there must be a reasonable expectation of success. Third, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.

Weigel is directed to an optimal method of scheduling routes for a number of technicians. *See Weigel*, p.117, column 1, lines 10-13. Each route includes an entire shift's workload.

Weigel, p. 117, column 1, lines 20-25; and p. 126, column 1, lines 5-8. Weigel does not disclose or suggest assigning a service request to a technician from a pool of available technicians based at least in part on a historical technician performance statistic and a current location of the technician, as recited in claim 1.

Bogart is directed to a method of optimizing call center performance by routing a call waiting in a call queue to an agent. *Bogart*, Abstract. The method of Bogart is performed on a call by call basis. *Bogart*, Abstract. Bogart does not disclose or suggest assigning a service request to a technician from a pool of available technicians based at least in part on a historical technician performance statistic and a current location of the technician, as recited in claim 1.

Claim 1 is therefore allowable since the asserted combination of references does not disclose or suggest each and every feature of claim 1. Additionally, claims 2-12, which depend from claim 1, are allowable at least by virtue of their dependence from claim 1.

Claim 14 recites wherein the statistic dispatch logic module utilizes performance statistics associated with the at least one technician and the current location of the at least one technician to formulate the dispatch instructions. For at least the reasons discussed above with respect to claim 1, neither Weigel nor Bogart disclose or suggest this feature of claim 14. Claim 14 is therefore allowable. Claims 16 and 17, which depend from claim 14, are also allowable at least by virtue of their dependence from claim 14.

Claim 30 recites assigning the service request to a technician from a pool of available technicians based at least in part on a historical technician performance statistic and a current location of the technician. For at least the reasons discussed above with respect to claim 1, neither Weigel nor Bogart disclose or suggest this feature of claim 30. Claim 30 is therefore allowable. Claims 31-36, which depend from claim 30, are also allowable at least by virtue of their dependence from claim 30.

In addition to the reasons discussed above, claims 1-12, 14, 16, 17 and 30-36 are allowable because the combination of Weigel and Bogart is improper because there is no motivation to make the asserted combination, and there is no reasonable expectation of success of the combination.

There is no reasonable expectation of success because Weigel and Bogart are technically incompatible. The method of Weigel is necessarily a batch processed method and the method of Bogart is necessarily a call-by-call method. That is, Weigel teaches that to achieve its objective, the method must simultaneously process all of the service orders for an area as a batch so that comparisons between different routing possibilities may be made. *See Weigel*, p. 115, column 2, line 19 through p. 116, column 2, line 7. In direct contrast, Bogart teaches that each call is individually processed, i.e., individually routed to a call queue. *Bogart*, column 4, lines 25-29. The Office Action acknowledges that Weigel relies on batch processing and Bogart relies on call-by-call processing. *Office Action*, p. 3. The batch processing disclosed in Weigel is technically incompatible with the call-by-call processing disclosed in Bogart; therefore, there can be no reasonable expectation of success in making the asserted combination.

Furthermore, Weigel teaches away from the method of Bogart by teaching that determining proper routing is necessarily a batch process. *See Weigel*, p.115, column 2, line 19 through p. 116, column 2, line 7. In direct contrast, Bogart requires a near real-time calculation in order to route a call waiting in a call queue to an available agent. *See Bogart*, column 1, lines 46-49. A reference that "teaches away" can not serve to create a prima facie case of obviousness and it is improper to combine references where the references teach away from their combination. Thus, the asserted combination is improper because the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983).

Moreover, Weigel makes it clear that merely accounting for the variables already considered by Weigel is computationally demanding and difficult to achieve within the targeted time of less than 1 hour. *Weigel*, p. 118, column 1, lines 2-13. Bogart, on the other hand, requires a near real-time calculation in order to route a call waiting in a call queue to an available agent. *See Bogart*, column 1, lines 46-49. The method of Weigel cannot be adapted to include near real time routing selection without rending it unsatisfactory for its intended purpose of optimizing routes for technicians for an entire shift's work. Likewise, the method of Bogart cannot be modified such that directing a single call to a call queue takes nearly an hour without rendering it unsatisfactory for its intended purpose of optimizing call center performance. Therefore, there can be no reasonable expectation of success in making the asserted combination.

Additionally, no motivation exists to make the combination asserted by the Office Action. Weigel teaches a vehicle routing and scheduling system that includes an assignment rules module that can use average travel time in assigning technicians or drivers. *See Weigel*, p. 116, col. 2, ll. 11-28. Bogart, on the other hand, teaches a method to maximize call center performance, which can use historical performance of call center agents to assign calls. *See Bogart*, col. 3, ll. 11-21. There is no motivation to combine Weigel with Bogart, because optimizing the dispatch of technicians or drivers to service order locations is unlikely to be achieved by evaluating the performance of call center agents. Using performance data related to the call center agents taught by Bogart, in order to dispatch the technicians or drivers taught by Weigel, would defeat the efficiency of the system taught by Weigel. Likewise, using performance data related to technicians or drivers taught by Weigel, in order to assign calls to the call center agents taught by Bogart would defeat the optimization of the system taught by Bogart. Hence, there is no motivation to make the combination asserted in the Office Action other than that provided by the Applicants' disclosure. The asserted combination is an impermissible hindsight reconstruction based on the Applicants' disclosure.

Further, the dependent claims include additional features not found in the references. For example, claim 2 recites a global positioning system that indicates the current location of a technician. Neither Weigel nor Bogart disclose or suggest this feature. Weigel discloses a seed point that indicates a centroid of an area where a technician is assigned. *Weigel*, p. 119, column 1, lines 33-34. The seed point does not disclose or suggest a global positioning system that indicates the current position of the technician, as recited in claim 2.

Claim 5 recites a service request status interface accessible to a competitive local exchange carrier (CLEC). The Office Action takes Official Notice that it is old and well known in the art for interfaces, including status request interfaces, to be web-based...or accessible through internet dialup (i.e. available by a CLEC). Applicants respectfully traverse the Official Notice. Claim 5 is directed to an interface accessible <u>to</u> a CLEC, not <u>via</u> a CLEC. Claim 5 has been amended to further clarify the scope of the claim. Neither Weigel nor Bogart disclose or suggest a service request status interface accessible to a CLEC, as recited in claim 5. Additionally, it is not old and well known in the art to make a service request status interface accessible to a CLEC, as recited in claim 5. Applicants respectfully request that the Examiner

provide documentary evidence to support the Official Notice since the Applicants have specifically pointed out the errors in the Official Notice. *See MPEP* 2144.03 C.

Claim 6 recites a frame system interface configured to access a frame operation management system, the service assignment module configured to transfer frame related service requests to the frame operation management system via the frame system interface. The Office Action states that the terms "frame" and "frame related" are "non-functional, descriptive language." Applicants respectfully disagree. The Application makes clear that service requests may include work at remote equipment and/or work at a central office or regional office, and that work at the central office or regional office is dispatched differently. *Application*, p. 5, paragraph [1018]. Thus, the fact that a service request is frame related is meaningful, and frame related service requests may be dispatched differently than non-frame related service requests (e.g., mobile work requests). Neither Weigel nor Bogart disclose or suggest a frame system interface configured to access a frame operation management system, the service assignment module configured to transfer frame related service requests to the frame operation management system via the frame system interface, as recited in claim 6.

Claims 18-26, 28, 29, 38 and 39 Are Allowable

The Office Action rejects claims 18-26, 28, 29, 38 and 39 under 35 U.S.C. 103(a) as unpatentable over the Non-Patent Literature references collectively referred to as Norand. Applicants respectfully traverse the rejections.

Claim 18 recites an order status monitoring module configured to access a mobile technician monitoring system via a mobile technician interface to receive service order completion data associated with a service request and configured to access a frame order management system via a frame order management system interface to receive frame order completion data associated with the service request. Norand does not disclose or suggest this feature of claim 18.

Norand discloses utilizing mobile computers to tie field technicians on-line into switches and departmental systems so that field workers can share telephone numbers and assignment information, coordinate transfers, and update records. *Norand*, Reference A, p. 1. However,

Norand does not disclose or suggest an order status monitoring module configured to access a mobile technician monitoring system via a mobile technician interface to receive service order completion data associated with a service request and configured to access a frame order management system via a frame order management system interface to receive frame order completion data associated with the service request, as recited in claim 18. Hence, claim 18 is allowable. Claims 19-26 depend from claim 18, and are therefore allowable at least by virtue of their dependence from claim 18.

The dependent claims include further features that are allowable. For example, claim 19 recites that the order status monitoring module reports a complete status associated with the service request upon receipt of both the service order completion data and the frame order completion data. Norand does not disclose or suggest this feature of claim 19.

Claim 25 recites an inventory provisioning interface configured to access a public switch telephone network inventory system. Norand does not disclose this feature of claim 25.

Claim 26 recites wherein the order status reporting interface is configured to provide access to a competitive local exchange carrier. Norand does not disclose this feature of claim 26.

Claim 28 recites an order status monitoring module configured to access a frame order management system via a frame order management system interface to receive frame order completion data associated with a service request. Norand does not disclose this feature of claim 28. As discussed above, Norand discloses utilizing mobile computers to tie field technicians on-line into switches and departmental systems so that field workers can share telephone numbers and assignment information, coordinate transfers and update records. *Norand*, Reference A, p. 1. However, Norand does not disclose or suggest an order status monitoring module configured to access a frame order management system via a frame order management system interface to receive frame order completion data associated with a service request, as recited in claim 28. Claim 28 is therefore allowable. Additionally, claim 29, which depends from claim 28 is allowable at least by virtue of its dependence from claim 28.

Claim 38 recites providing an order status associated with the service request based on the service order completion data and the frame order completion data via a web-based order

status reporting interface. Norand does not disclose or suggest this feature of claim 38. Claim 38 is therefore allowable. Additionally, claim 39, which depends from claim 38 is allowable at least by virtue of its dependence from claim 38.

CONCLUSION

No new matter has been added by the amendments presented herein. Any changes to the claims in this amendment, which have not been specifically noted to overcome a rejection based upon cited references, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto. Applicants' failure to challenge any cited reference as prior art should not be construed as an admission by Applicants that the unchallenged reference does constitute prior art.

In view of the foregoing, Applicants respectfully submit that the present application is in condition for allowance. Accordingly, the Examiner is requested to issue a Notice of Allowance for all pending claims. If, for any reason, the Office is unable to allow the Application on the next Office Action, and believes a telephone interview would be helpful, the Examiner is respectfully requested to contact the undersigned attorney or agent.

The Commissioner is hereby authorized to charge any fees that may be required, or credit any overpayment, to Deposit Account Number 50-2469.

Respectfully submitted,

1-5-2007
Date

Jeffrey G. Toler, Reg. No. 38,342
Attorney for Applicant(s)
TOLER SCHAFFER, L.L.P.
5000 Plaza On The Lake, Suite 265
Austin, Texas 78746
(512) 327-5515 (phone)
(512) 327-5575 (fax)

OIPE IAP98 JAN 08 2007 PATENT & TRADEMARK OFFICE

2/4
(ANNOTATED SHEET)
SERVICE SUPPORT SYSTEM

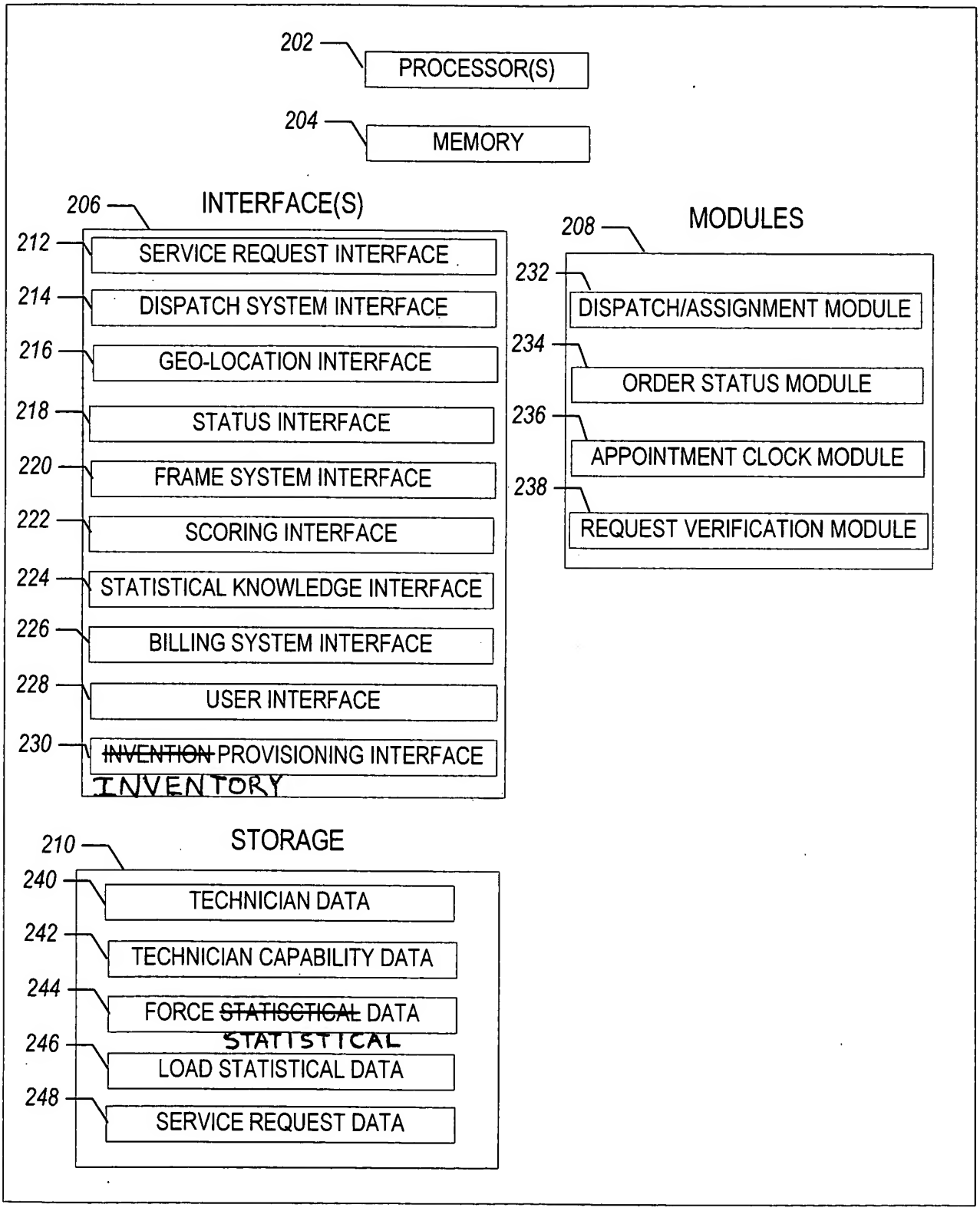

FIG. 2